



Reference: 346991

*August 13, 2019*

Gregory Sopkin  
Regional Administrator (EPA Region 8)  
United States Environmental Protection Agency  
Sent via email: [Sopkin.gregory@epa.gov](mailto:Sopkin.gregory@epa.gov)

Chris Hladick  
Regional Administrator (EPA Region 10)  
United States Environmental Protection Agency  
Sent via email: [Hladick.christopher@epamail.epa.gov](mailto:Hladick.christopher@epamail.epa.gov)

Dear Mr. Sopkin and Mr. Hladick:

Thank you for your letter of July 22, 2019, regarding input for the Implementation Plan Adjustment Summary.

As you know, Ministerial Order #M113 was issued in 2013 and required Teck to develop the Elk Valley Water Quality Plan (EVWQP). Included in the EVWQP was an Initial Implementation Plan outlining the mitigation activities to achieve targets for concentration of selenium and other nutrients in surface water at specific locations throughout the Elk Valley and the Koocanusa Reservoir. When the Ministry of Environment and Climate Change Strategy issued Permit #107517 to Teck in 2014 under the *Environmental Management Act*, many of the actions and commitments made in the EVWQP and the Initial Implementation Plan were incorporated into the permit requirements.

To maintain compliance, Teck must meet the requirements in Permit #107517, including site performance objectives set for order stations. It is important to review and update the implementation plan every three years to incorporate key learnings from operations and to include adaptive steps made to ensure permit requirements are met.

The 2019 Implementation Plan Adjustment (IPA) is the first such update. It takes into account learnings from the past three years of monitoring and challenges encountered during initial operation. Although Teck is only required to develop and submit the IPA to the Ministry of Energy, Mines and Petroleum Resources, the company has been working collaboratively with Ministry of Environment and Climate Change Strategy staff and representatives from the Ktunaxa Nation Council to get feedback on proposed adjustments before submitting a final plan. Upon receipt of the final IPA, the Ministry of Environment and Climate Change Strategy will review it in close cooperation with the Ktunaxa Nation Council and consider updating Teck's permit in response. The final IPA will be made available absent certain information about proprietary technologies which cannot be shared publicly.

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Requiring proponents to periodically review and update implementation plans is an important aspect of BC's approach to managing waste discharge permits. Adaptive management helps ensure mitigation measures are effective and responsive to changing circumstances in the field. It also helps to promote continuous innovation and improvement. For example in Teck's permit, the use of Active Water Treatment facilities is a baseline requirement because it has been proven to reduce pollution by taking water into a treatment facility, removing unwanted constituents and returning the water back to the environment. However, the permit is also flexible, allowing the company to propose alternatives as new technologies and approaches are developed. BC remains committed to applying world leading technology and mitigation measures to protect our environment.

I understand from your letter that you are concerned about the effectiveness of Active Water Treatment facilities and the recent increase in selenium water column concentrations. As you know, in the spring of 2018 there was a temporary shutdown of the Active Water Treatment facility at Line Creek in order to address a problem with selenium compounds in treated water. I want to assure you that in spite of the early challenges, the Active Water Treatment facility at Line Creek is back online and has been upgraded with a new advanced oxidation process to address the challenges related to selenium compounds. The upgraded facility has been operating since October 2018. The facility treats up to 7.5 million litres of water per day and reduces selenium concentrations in treated water by 96 percent and nitrate concentrations by over 99 percent. This new advanced oxidation process will be incorporated into future Active Water Treatment facilities for Teck's Elk Valley operations, and construction of the Fording River South Active Water Treatment Facility has already begun.

Although Teck worked to install the upgrades and get the facility back in operation as quickly as possible, there was unfortunately a six-month period where the treatment facility was shut down in 2018. Now that the facility is back up and running, we expect long-term selenium concentrations to stabilize and decrease in the downstream receiving environment.

Lastly, I want to address your comment about the IPA only speaking to BC's territory. As you know, Teck's permit and the IPA are administered under the *Environmental Management Act*, which only applies within BC's jurisdiction. That is why we have been working closely with your agency, the Montana Department of Environmental Quality, First Nations, US Tribes and various other agencies and non-governmental organizations through the Lake Koocanusa Monitoring and Research Working Group (the Working Group). The Working Group is collaboratively developing aligned water quality objectives/criteria for Lake Koocanusa, with the goal of achieving "one lake-one number." We look forward to continuing to work with your agency and others through the Working Group to advance this shared goal.

I invite you to review the appendix to this letter which provides a detailed overview of the implementation plan, water treatment performance, review process for mine expansions and our efforts towards transparency and collaboration. If you have any questions about the appendix or if any US federal agencies have additional technical advice to share, please do not hesitate to contact our Regional Director of Mining Operations, Doug Hill, at 250 398-4542 or [Doug.Hill@gov.bc.ca](mailto:Doug.Hill@gov.bc.ca).

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Thank you again for taking the time to write.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jennifer McGuire".

*Jennifer McGuire for*  
Mark Zacharias  
Deputy Minister

Attachment

cc: Dave Nikolejsin, Deputy Minister, Ministry of Energy, Mines and Petroleum Resources  
Bobbi Plecas, Deputy Minister, Intergovernmental Relations Secretariat, Office of the  
Premier